**Homework 38 Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
Simplify Complex Radicals Period:\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Failure to show all work and write in complete sentences will result in LaSalle!**

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| --- | --- | --- | --- |
| 1. Which of the following is equivalent to the imaginary # i ?   A) -1  B) -  C) 1  D)  What is the standard form for writing a complex number? | | 1. Simplify:   A)  B) 2i  C) 3i  D) -5  E) 5i | |
| 1. Simplify:   A) 4i  B) 5i  C) 10i  D)  E) | | 1. 4) Simplify:   A)  B)  C)  D) 24i  E) None of the above | |
| 1. = | 1. = | | 1. = |
| 1. = | 1. = | | 1. is equivalent to:   A)  B)  C)  D) |

DIRECTIONS: Write the expression as a complex number in standard form.

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| 1. (-2 -6i) – (4 – 6i) | 1. (3i +14) – (7 + 6i) + (2i – 5) | | 1. (3i – 8) – (-11i + 4) – (i -1) |
|  | 1. Simplify: | |  |
| 1. In the standard form, = ?   A) -18 + 15i  B) -18 – 15i  C) -18 – 5i  D) -3i | | 18) Which of the following is equivalent to 2(8 + i) ?  A) 17i  B) 16i  C) 16 + 2i  D) 16i + 2i | |

* Watch the Kahn Academy video (type this into “Search for a video or playlist”):  
  **Introduction to i and Imaginary Numbers**
* Link: <http://www.khanacademy.org/video/introduction-to-i-and-imaginary-numbers?playlist=Algebra>
* Watch the ENTIRE video! Failure to watch the video and respond in **COMPLETE sentences** will result in LASALLE!

**Directions**: Fill in the information while watching the video

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1. Solve for the following powers of

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1. What is the four number cycle that we see when is raised to different powers?

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1. How will this cycle be helpful to us when we have raised to a very large power, for example ?

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